Mercedes Solla

List of Publications by Year in Descending Order

65 papers	1,164 citations	21 h-index	30 g-index
70 ext. papers	1,457 ext. citations	4.2 avg, IF	4.89 L-index

#	Paper	IF	Citations
65	GPR monitoring for road transport infrastructure: A systematic review and machine learning insights. *Construction and Building Materials*, **2022**, 324, 126686	6.7	9
64	GPR Application on Geothermal Studies: The Case Study of the Thermal Baths of San Xusto (Pontevedra, Spain). *Remote Sensing*, **2022**, 14, 2667	5	0
63	A Review of GPR Application on Transport Infrastructures: Troubleshooting and Best Practices. *Remote Sensing*, **2021**, 13, 672	5	33
62	A Building Information Modeling Approach to Integrate Geomatic Data for the Documentation and Preservation of Cultural Heritage. *Remote Sensing*, **2020**, 12, 4028	5	11
61	An experimental and numerical approach to combine Ground Penetrating Radar and computational modeling for the identification of early cracking in cement concrete pavements. *NDT and E International*, **2020**, 115, 102293	4.1	23
60	NDT assessment of rigid pavement damages with ground penetrating radar: laboratory and field tests. *International Journal of Pavement Engineering*, **2020**, 1-16	2.6	12
59	Approach to generate 3D-printed terrain models using free software and open data sources: Application to military planning. *Computer Applications in Engineering Education*, **2020**, 28, 477-489	1.6	4
58	IRT and GPR Techniques for Moisture Detection and Characterisation in Buildings. *Sensors*, **2020**, 20,	3.8	17
57	Imaging Thermal Anomalies in Hot Dry Rock Geothermal Systems from Near-Surface Geophysical Modelling. *Remote Sensing*, **2019**, 11, 675	5	3
56	Assessing Rebar Corrosion through the Combination of Nondestructive GPR and IRT Methodologies. *Remote Sensing*, **2019**, 11, 1705	5	24
55	Ground-penetrating radar for the evaluation and monitoring of transport infrastructures **2019**, 341-398		3
54	A mobile android tool for simplified GPR data processing in construction applications. *Automation in Construction*, **2018**, 89, 170-182	9.6	3
53	Railway Track Condition Assessment at Network Level by Frequency Domain Analysis of GPR Data. *Remote Sensing*, **2018**, 10, 559	5	17
52	Experiences of Inclusive Teaching of Graphic Expression in the Context of Mechanical Engineering. *Proceedings (mdpi)*, **2018**, 2, 1337	0.3	
51	Reconstructing the Roman Site "Aquis Querquennis" (Bande, Spain) from GPR, T-LiDAR and IRT Data Fusion. *Remote Sensing*, **2018**, 10, 379	5	12
50	Transport infrastructures assessment using multiple GPR configurations and FWD. *MATEC Web of Conferences*, **2018**, 211, 12005	0.3	
49	Ground Penetrating Radar Investigations in the Noble Hall of São Carlos Theater in Lisbon, Portugal. *Surveys in Geophysics*, **2018**, 39, 1125-1147	7.6	8

48	Joint use of GPR, IRT and TLS techniques for the integral damage detection in paving. *Construction and Building Materials*, **2018**, 174, 749-760	6.7	21
47	Evaluation of the feasibility of Common Mid-Point approach for air-coupled GPR applied to road pavement assessment. *Measurement: Journal of the International Measurement Confederation*, **2018**, 128, 295-305	4.6	13
46	Assessing the pavement subgrade by combining different non-destructive methods. *Construction and Building Materials*, **2017**, 135, 76-85	6.7	33
45	Efficient GPR data acquisition to detect underground pipes. *NDT and E International*, **2017**, 91, 22-31	4.1	18
44	Structural assessment of masonry arch bridges by combination of non-destructive testing techniques and three-dimensional numerical modelling: Application to Vilanova bridge. *Engineering Structures*, **2017**, 148, 621-638	4.7	61
43	Evaluation of a highway pavement using non-destructive tests: Falling Weight Deflectometer and Ground Penetrating Radar. *Construction and Building Materials*, **2017**, 154, 1164-1172	6.7	28
42	Comparison of different object-based classifications in LandsatTM images for the analysis of heterogeneous landscapes. *Measurement: Journal of the International Measurement Confederation*, **2017**, 97, 29-37	4.6	12
41	Evaluation of historical bridges through recreation of GPR models with the FDTD algorithm. *NDT and E International*, **2016**, 77, 19-27	4.1	25
40	Modelling and strength evaluation of masonry bridges using terrestrial photogrammetry and finite elements. *Advances in Engineering Software*, **2016**, 101, 136-148	3.6	40
39	Assessing the Applicability of Ground-Penetrating Radar to Quality Control in Tunneling Construction. *Journal of Construction Engineering and Management - ASCE*, **2016**, 142, 06015006	4.2	13
38	NDT Documentation and Evaluation of the Roman Bridge of Lugo Using GPR and Mobile and Static LiDAR. *Journal of Performance of Constructed Facilities*, **2015**, 29, 06014004	2	26
37	Applications of GPR for Humanitarian Assistance and Security. *Springer Transactions in Civil and Environmental Engineering*, **2015**, 301-326	0.4	0
36	Assessment of a concrete pre-stressed runway pavement with ground penetrating radar **2015**,		4
35	Combined approach of GPR and thermographic data through FDTD simulation to analyze masonry bridges: The evaluation of construction materials in a restored masonry arch bridge **2015**,		2
34	Applications of GPR in Association with Other Non-destructive Testing Methods in Surveying of Transport Infrastructures. *Springer Transactions in Civil and Environmental Engineering*, **2015**, 327-342	0.4	0
33	Signal-to-Noise Ratio dependence on Ground Penetrating Radar antenna frequency in the field of landmine and UXO detection. *Measurement: Journal of the International Measurement Confederation*, **2015**, 73, 24-32	4.6	12
32	Inspection Procedures for Effective GPR Surveying of Buildings. *Springer Transactions in Civil and Environmental Engineering*, **2015**, 97-123	0.4	5
31	Approach to identify cracking in asphalt pavement using GPR and infrared thermographic methods: Preliminary findings. *NDT and E International*, **2014**, 62, 55-65	4.1	76

30	Combination of geophysical prospecting techniques into areas of high protection value: Identification of shallow volcanic structures. *Journal of Applied Geophysics*, **2014**, 109, 15-26	1.7	8
29	Three-dimensional ground-penetrating radar methodologies for the characterization and volumetric reconstruction of underground tunneling. *Construction and Building Materials*, **2014**, 71, 551-560	6.7	28
28	A semi-automatic processing and visualisation tool for ground-penetrating radar pavement thickness data. *Automation in Construction*, **2014**, 45, 42-49	9.6	25
27	GPR Signal Characterization for Automated Landmine and UXO Detection Based on Machine Learning Techniques. *Remote Sensing*, **2014**, 6, 9729-9748	5	45
26	Ancient Stone Bridge Surveying by Ground-Penetrating Radar and Numerical Modeling Methods. *Journal of Bridge Engineering*, **2014**, 19, 110-119	2.7	20
25	GPR for road inspection: Georeferencing and efficient approach to data processing and visualization **2014**,		4
24	Searching for the remains of an Early Bronze Age city at Tell Qubr Abu al-Ātiq (Syria) through archaeological investigations and GPR imaging. *Journal of Cultural Heritage*, **2014**, 15, 575-579	2.9	16
23	Non-destructive testing for the analysis of moisture in the masonry arch bridge of Lubians (Spain). *Structural Control and Health Monitoring*, **2013**, 20, n/a-n/a	4.5	17
22	Validation of mobile LiDAR surveying for measuring pavement layer thicknesses and volumes. *NDT and E International*, **2013**, 60, 70-76	4.1	16
21	A novel approach to evaluate masonry arch stability on the basis of limit analysis theory and non-destructive geometric characterization. *Automation in Construction*, **2013**, 31, 140-148	9.6	30
20	Uncertainty evaluation of the 1GHz GPR antenna for the estimation of concrete asphalt thickness. *Measurement: Journal of the International Measurement Confederation*, **2013**, 46, 3032-3040	4.6	19
19	Semi-automatic land consolidation software based on geographic information systems. *Computers and Electronics in Agriculture*, **2013**, 97, 1-5	6.5	4
18	Ground-Penetrating Radar for Inspection of In-Road Structures and Data Interpretation by Numerical Modeling. *Journal of Construction Engineering and Management - ASCE*, **2013**, 139, 749-753	4.2	4
17	Ground-penetrating radar for the structural evaluation of masonry bridges: Results and interpretational tools. *Construction and Building Materials*, **2012**, 29, 458-465	6.7	43
16	A novel methodology for the structural assessment of stone arches based on geometric data by integration of photogrammetry and ground-penetrating radar. *Engineering Structures*, **2012**, 35, 296-306	4.7	25
15	Structural analysis of the Roman Bibei bridge (Spain) based on GPR data and numerical modelling. *Automation in Construction*, **2012**, 22, 334-339	9.6	18
14	Comparison between laser scanning, single-image rectification and ground-penetrating radar technologies in forensic science. *Measurement: Journal of the International Measurement Confederation*, **2012**, 45, 836-843	4.6	9
13	Application of non-destructive geomatic techniques and FDTD modeling to metrical analysis of stone blocks in a masonry wall. *Construction and Building Materials*, **2012**, 36, 14-19	6.7	15

12	Experimental forensic scenes for the characterization of ground-penetrating radar wave response. *Forensic Science International*, **2012**, 220, 50-8	2.6	13
11	From pseudo-3D to full-resolution GPR imaging of a complex Roman site. *Near Surface Geophysics*, **2012**, 10, 11-15	1.6	14
10	A full non-metallic trailer for GPR road surveys. *Journal of Applied Geophysics*, **2011**, 75, 490-497	1.7	11
9	Multidisciplinary approach to the assessment of historic structures based on the case of a masonry bridge in Galicia (Spain). *Computers and Structures*, **2011**, 89, 1615-1627	4.5	47
8	Non-destructive methodologies in the assessment of the masonry arch bridge of Traba, Spain. *Engineering Failure Analysis*, **2011**, 18, 828-835	3.2	34
7	3D GPR in forensics: Finding a clandestine grave in a mountainous environment. *Forensic Science International*, **2011**, 204, 134-8	2.6	43
6	GPR evaluation of the Roman masonry arch bridge of Lugo (Spain). *NDT and E International*, **2011**, 44, 8-12	4.1	37
5	GPR analysis of a masonry arch for structural assessment **2011**,		4
4	Masonry arch bridges evaluation by means of GPR **2010**,		4
3	Three-dimensional ground-penetrating radar strategies over an indoor archaeological site: Convent of Santo Domingo (Lugo, Spain). *Archaeological Prospection*, **2010**, 17, 213-222	1.8	18
2	Ground-penetrating radar assessment of the medieval arch bridge of San Ant□, Galicia, Spain. *Archaeological Prospection*, **2010**, 17, 223-232	1.8	19
1	GPR analysis to detect subsidence: a case study on a loaded reinforced concrete pavement. *International Journal of Pavement Engineering*,1-15	2.6	1